

## REMARKS

This Application has been carefully reviewed in light of the Office Action mailed February 2, 2010. At the time of the Office Action, Claims 10, 12-17, 19-23 and 25-26 were pending in this Application. Claims 10, 12-17, 19-23 and 25-26 were rejected. Claims 10 and 12 have been amended. Claims 1-9, 11, 18 and 24 were previously cancelled without prejudice or disclaimer. Claims 27-29 have been added. Applicants respectfully request reconsideration and favorable action in this case.

New claims 27-29 are supported by the originally submitted specification as evidenced, for example, in paragraph [0017] of the published application.

### **Rejections under 35 U.S.C. § 102**

Claims 10, 12-17, 19-23 and 25-26 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,345,916 issued to Amann et al. ("*Amann*"). Applicants respectfully traverse and submit the cited art does not teach all of the elements of the claimed embodiment of the invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "the identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicants respectfully submit that the cited art as anticipated by the Examiner cannot anticipate the rejected Claims, because the cited art does not show all the elements of the present Claims.

The Examiner rejected newly proposed claims 25 and 26 as anticipated by *Amann*. However, the Examiner did not provide any reasoning as to why the arrangement of *Amann* discloses the measurement of the flow rate let alone the measurement of such a flow rate by a sensor.

The Examiner generally maintains that *Amann* allegedly discloses the determination of the actual fuel pressure. Applicant respectfully disagrees. *Amann* does not disclose the determination of the actual fuel pressure. *Amann's* device comprises a valve 61 which is

controlled by a microprocessor 80. (*Amann*, 4:32-35) The microprocessor 80 energizes a solenoid 58 at different points or angles along the pumping ramp of the cam as determined by engine operating conditions. (*Amann*, 4:35-39) The microprocessor 80 which knows the cam angle determines the end of the injection. (*Amann*, 4:39-42) Thus, the only variable which is supplied to the microprocessor is the cam angle. However, Applicant would like to point out that it is impossible to determine the actual fuel pressure only by means of this value. At best, *Amann's* device can approximate a fuel pressure value. The present independent claims however require that the actual fuel pressure or actual flow rate is measured by a sensor.

The Examiner further stated that *Amann* discloses the determination of two actual fuel pressure values in Fig. 6 which shows pumping rate measured in mm<sup>3</sup>/degree and fuel pressure pulses. (Office Action, page 3) Applicant respectfully disagrees. Fig. 6 does not disclose any actual fuel pressure which is measured, for example, in psi or N/m<sup>2</sup>, but rather a fuel pumping rate (mm<sup>3</sup>/degree) illustrated by P". Moreover, the curve P" is not derived from measured values but rather represents the shape of the pumping cam. (*Amann*, 7:7-10)

The Examiner further states that Fig. 6 of *Amann* shows fuel pressure pulses. (Office Action, page 3) Applicant respectfully disagrees. Profiles W1-W5 represent the injector needle lift.

The Examiner further stated that *Amann* discloses a comparison of the calculated actual fuel pressure gradient to a specified threshold gradient value. To prove this assertion, the Examiner merely points to Figs. 5A and 5B. (Office Action, page 3) Applicant respectfully disagrees. Fig. 5A and 5B do not show a comparison of gradients. Fig. 5A illustrates the effective profile P of the cam. The only value determined by the processor are the points A and D wherein A represents the injection start and D represents the injection termination. These points are not determined by a gradient. Rather, the termination point D is set to match the desired fuel quantity. (*Amann*, 5:65-6:38)

It is clear from the description of *Amann*, that the device shown in Fig 1. is not a regulator valve but rather an injector valve. Fuel injection is performed opening and closing valve 61 which is operated by solenoid 58. (*Amann*, 4:32-45) *Amann* neither discloses nor suggests determining the actual fuel pressure at any time, let alone the gradient.

Hence, *Amann* cannot anticipate the independent claims. Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims. Applicants reserve the right to make further arguments regarding the Examiner's rejections under 35 U.S.C. §102 or §103(a), if necessary, and do not concede that the Examiner's proposed combinations are proper.

**CONCLUSION**

Applicants have made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicants respectfully request reconsideration of the pending claims.

Applicants believe there are no fees due at this time. However, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512-457-2025.

Respectfully submitted,  
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Date: April 30, 2010

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